

00377 1656460

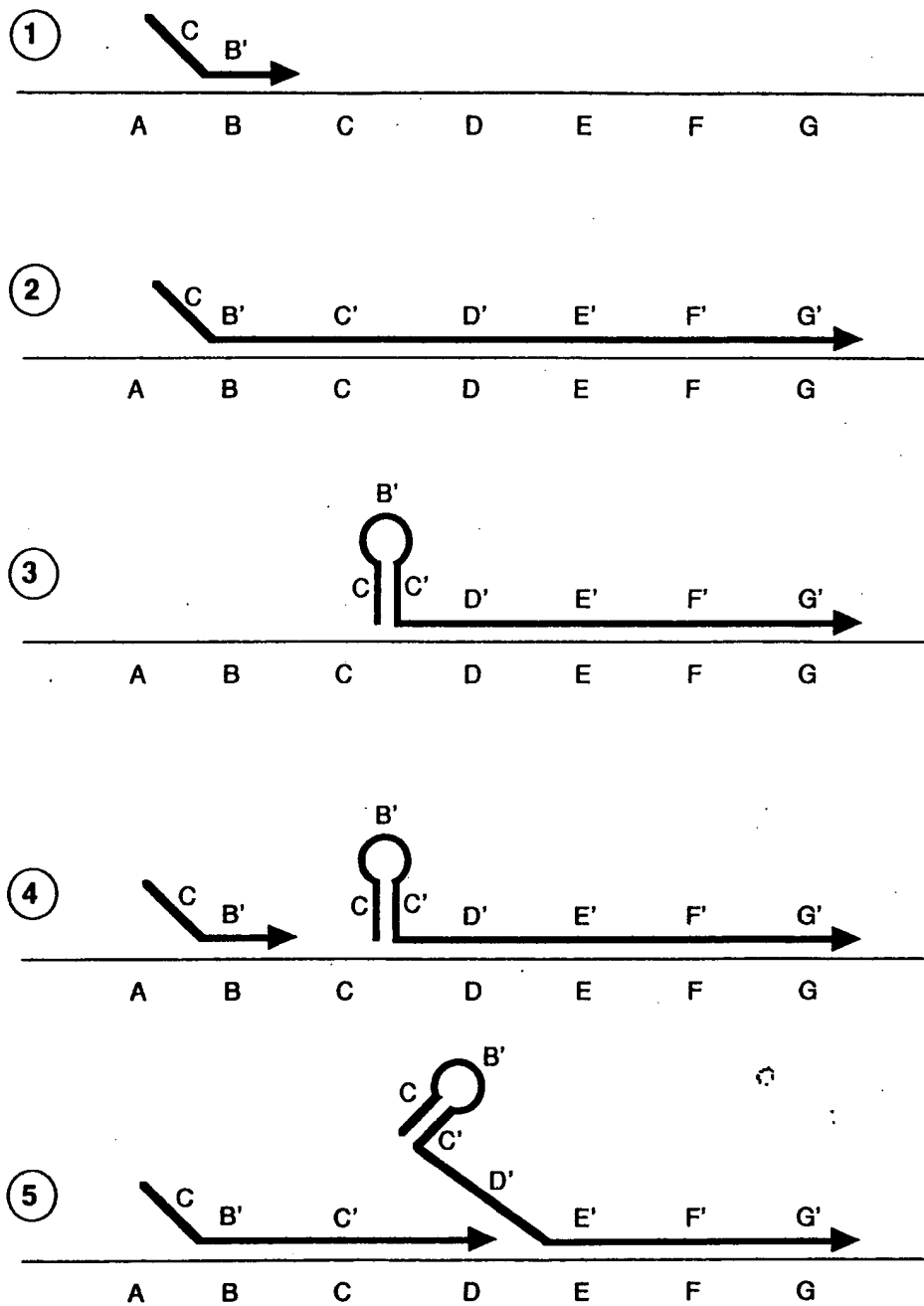


FIGURE 1

REF ID: A66666

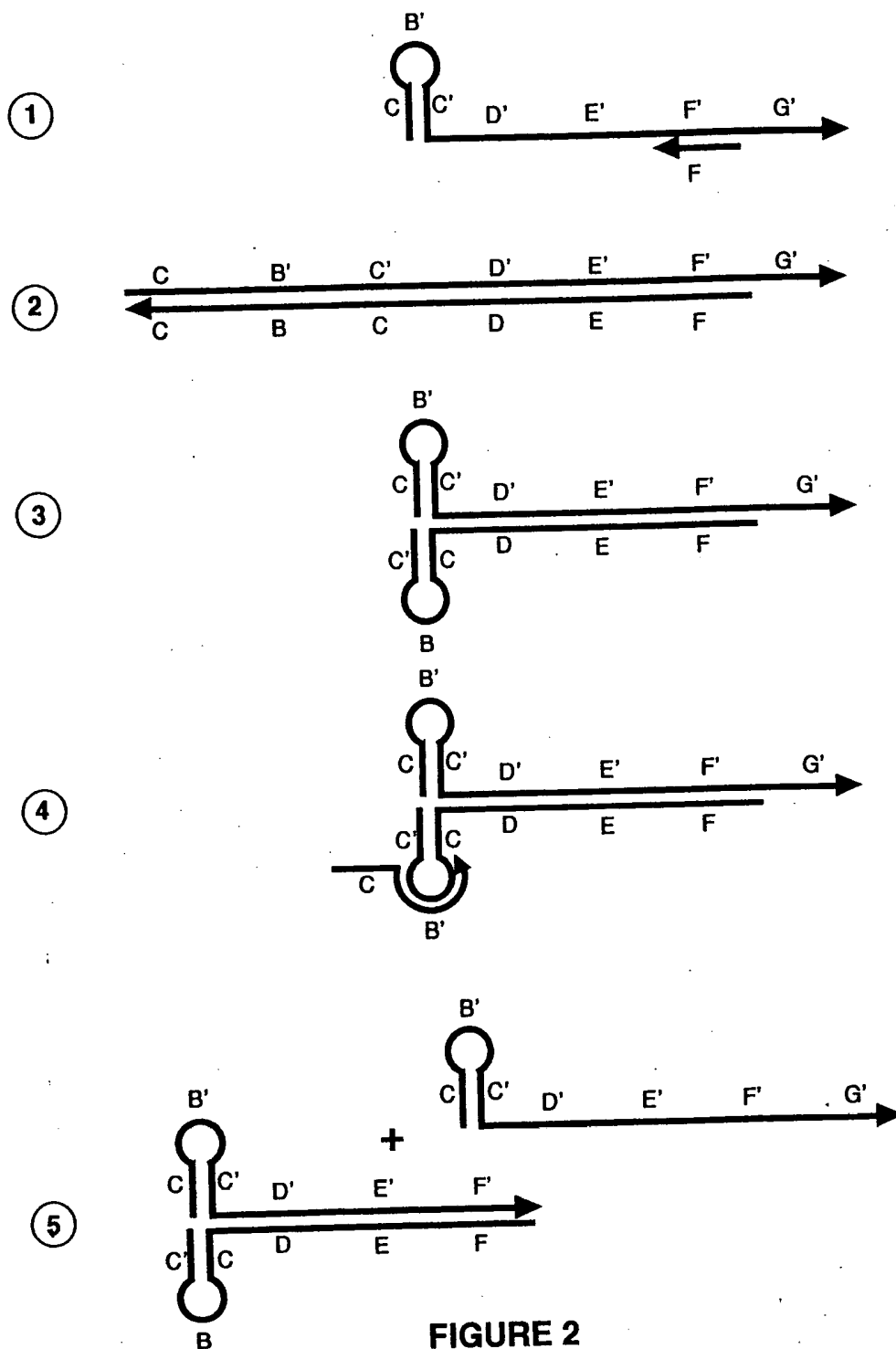


FIGURE 2

00430504 44309
SECRET 16562160

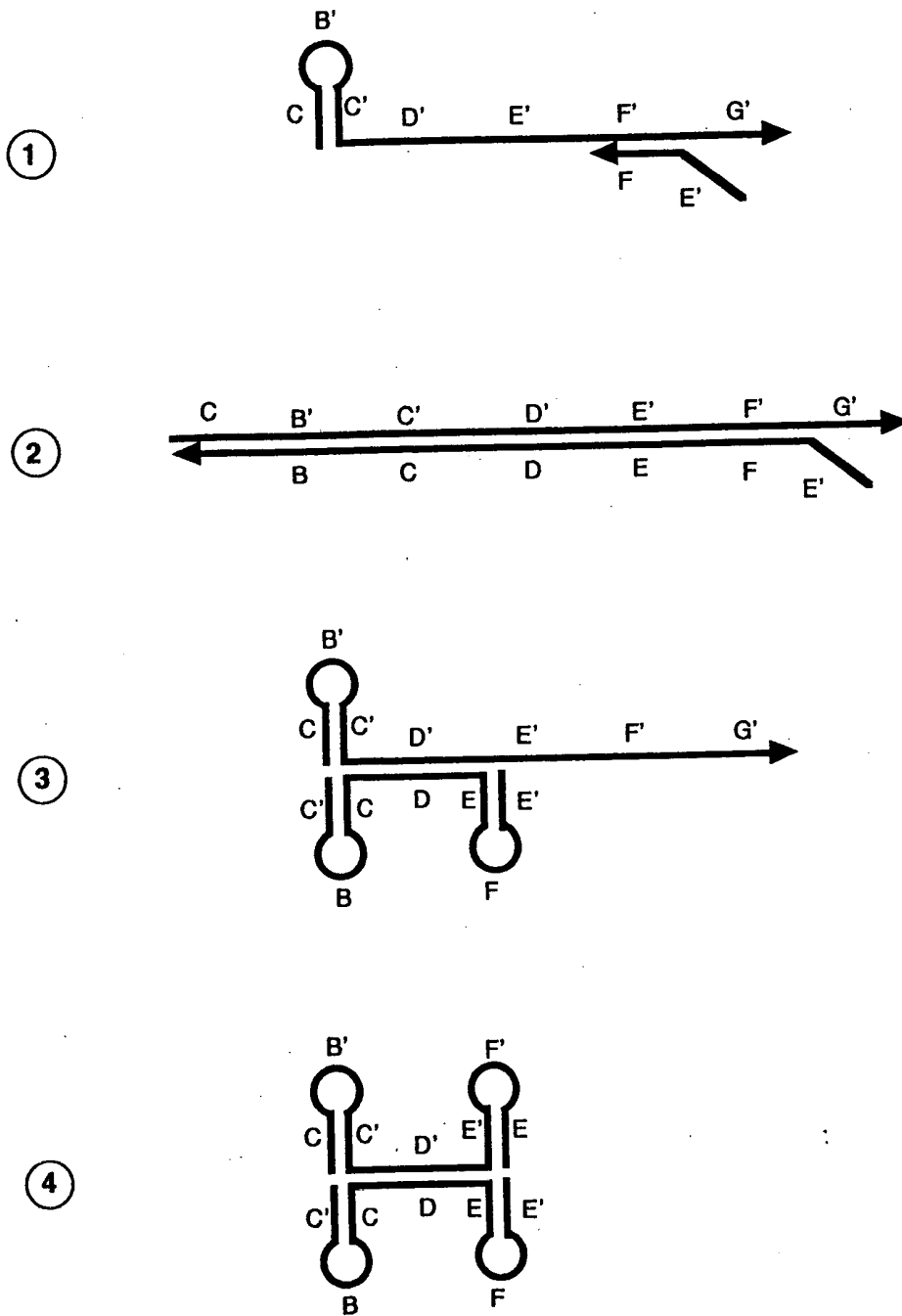


FIGURE 3

①

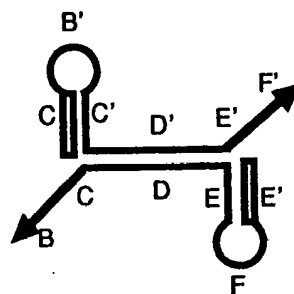
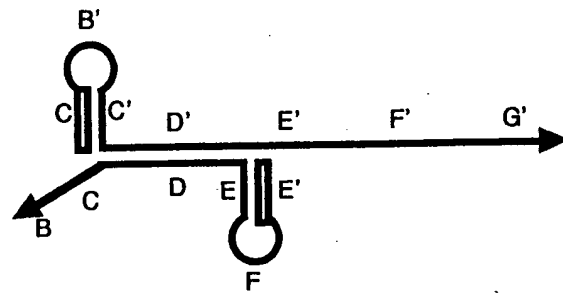
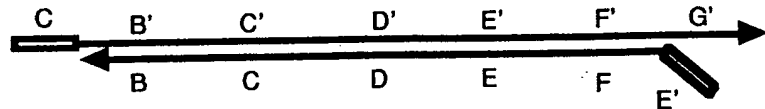
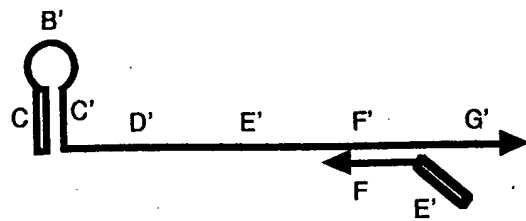


FIGURE 4

The diagrams illustrate the addition of two paths in a directed graph. Each diagram shows two horizontal paths, one labeled 'a b c d' and the other 'a' b' c' d'. The paths are connected by a vertical segment labeled 'e f g h'. The diagrams show the paths being added together, with the result being a single path labeled 'a b c d'.

Diagram 1: Shows the two paths 'a b c d' and 'a' b' c' d' with a vertical segment 'e f g h' connecting them. The paths are labeled #1.

Diagram 2: Shows the two paths 'a b c d' and 'a' b' c' d' with a vertical segment 'e f g h' connecting them. The paths are labeled #2.

Diagram 3: Shows the two paths 'a b c d' and 'a' b' c' d' with a vertical segment 'e f g h' connecting them. The paths are labeled #1 and #2.

Diagram 4: Shows the two paths 'a b c d' and 'a' b' c' d' with a vertical segment 'e f g h' connecting them. The paths are labeled #1 and #2.

Figure 5

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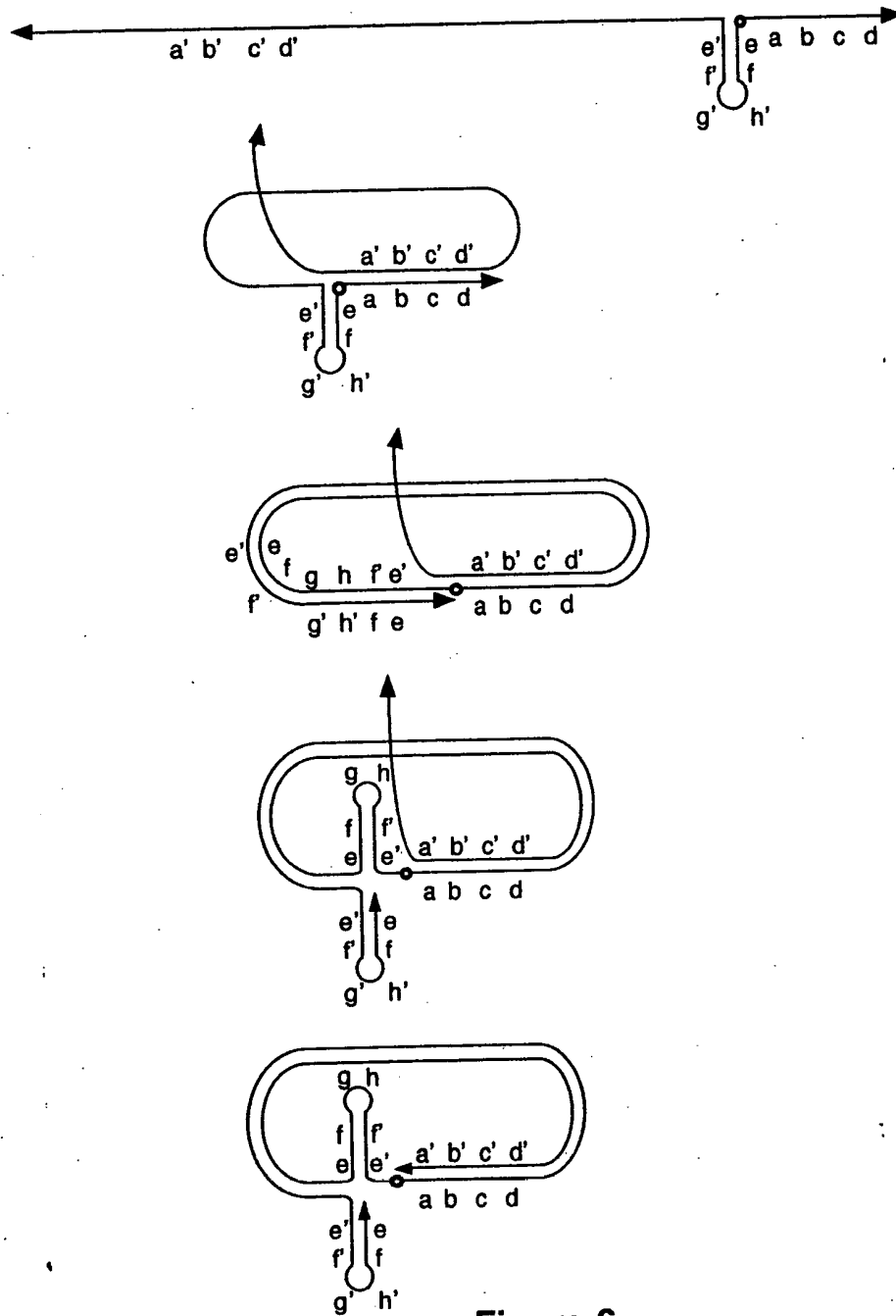


Figure 6

The diagrams show the construction of a figure with a horizontal base and a complex, multi-segmented top profile. The construction proceeds from left to right, using a series of parallel lines and arcs to define the shape's boundaries.

- Diagram 1:** Establishes the top horizontal line with points a, b, c, d and e, f, g, h . A vertical line segment $g'h'$ is drawn from point g' on the top line down to point h' on a lower line. An arc centered at h' passes through point f on the top line. A horizontal segment $d'e$ connects point d' on the lower line to point e on the arc.
- Diagram 2:** Adds a second horizontal line below the first, labeled $a'b', c'd'$. The vertical segment $g'h'$ is extended down to this new line. The arc centered at h' is extended to intersect the new line at point f' . A horizontal segment $d'e'$ connects point d' on the new line to point e' on the arc.
- Diagram 3:** A third horizontal line is added below the second, labeled $a''b'', c''d''$. The vertical segment $g'h'$ is extended down to this line. The arc centered at h' is extended to intersect the new line at point f'' . A horizontal segment $d''e''$ connects point d'' on the new line to point e'' on the arc.
- Diagram 4:** Shows the final construction. The top horizontal line is labeled $a'b', c'd'$. The vertical segment $g'h'$ is extended down to the bottom line. The arc centered at h' is extended to intersect the bottom line at point f' . A horizontal segment $d'e'$ connects point d' on the bottom line to point e' on the arc.

Figure 7

00211 10500100

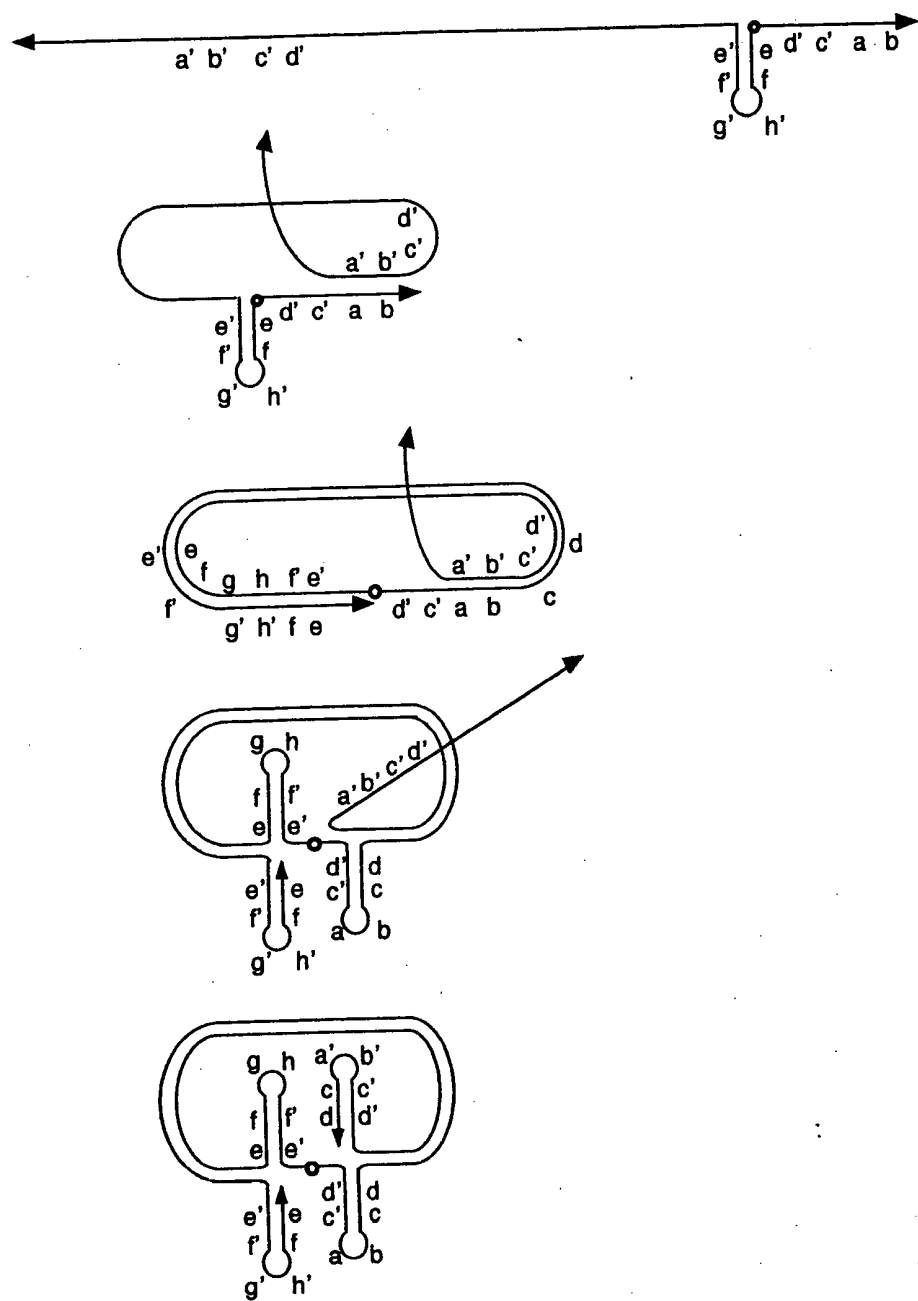
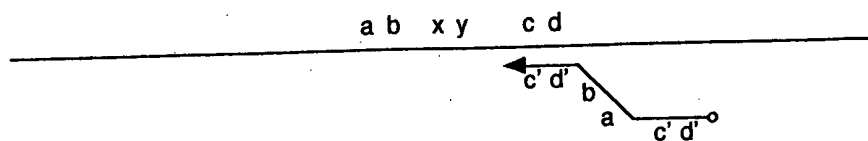
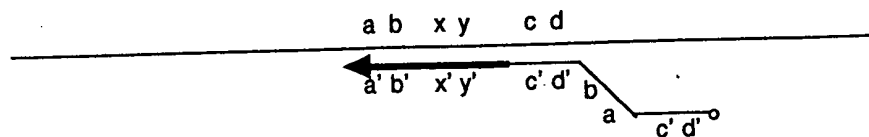


Figure 8

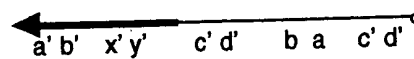
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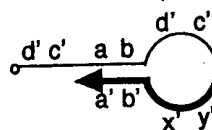
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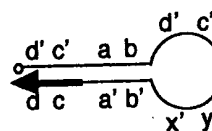
3



④



5



6

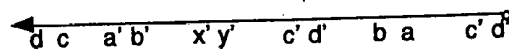


FIGURE 9

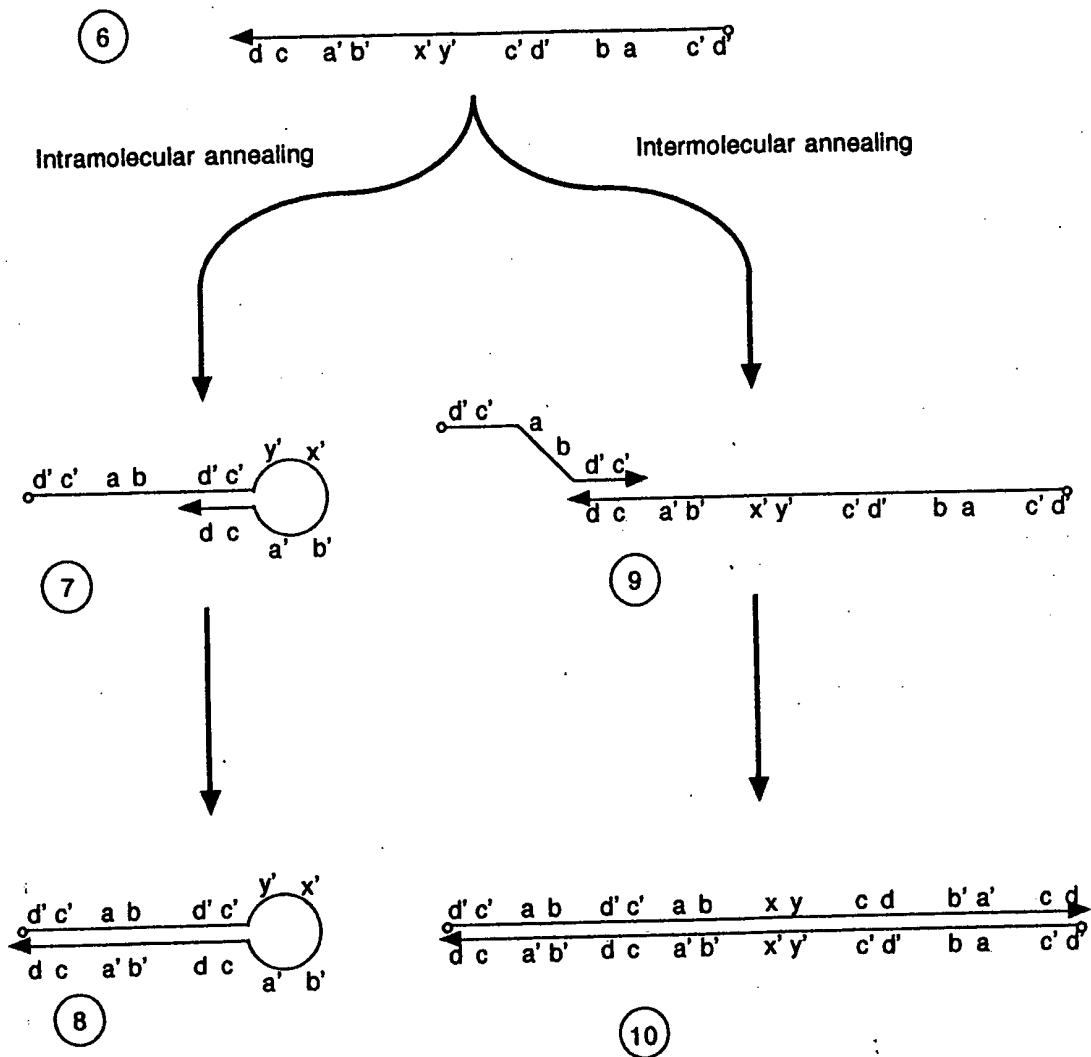


FIGURE 10

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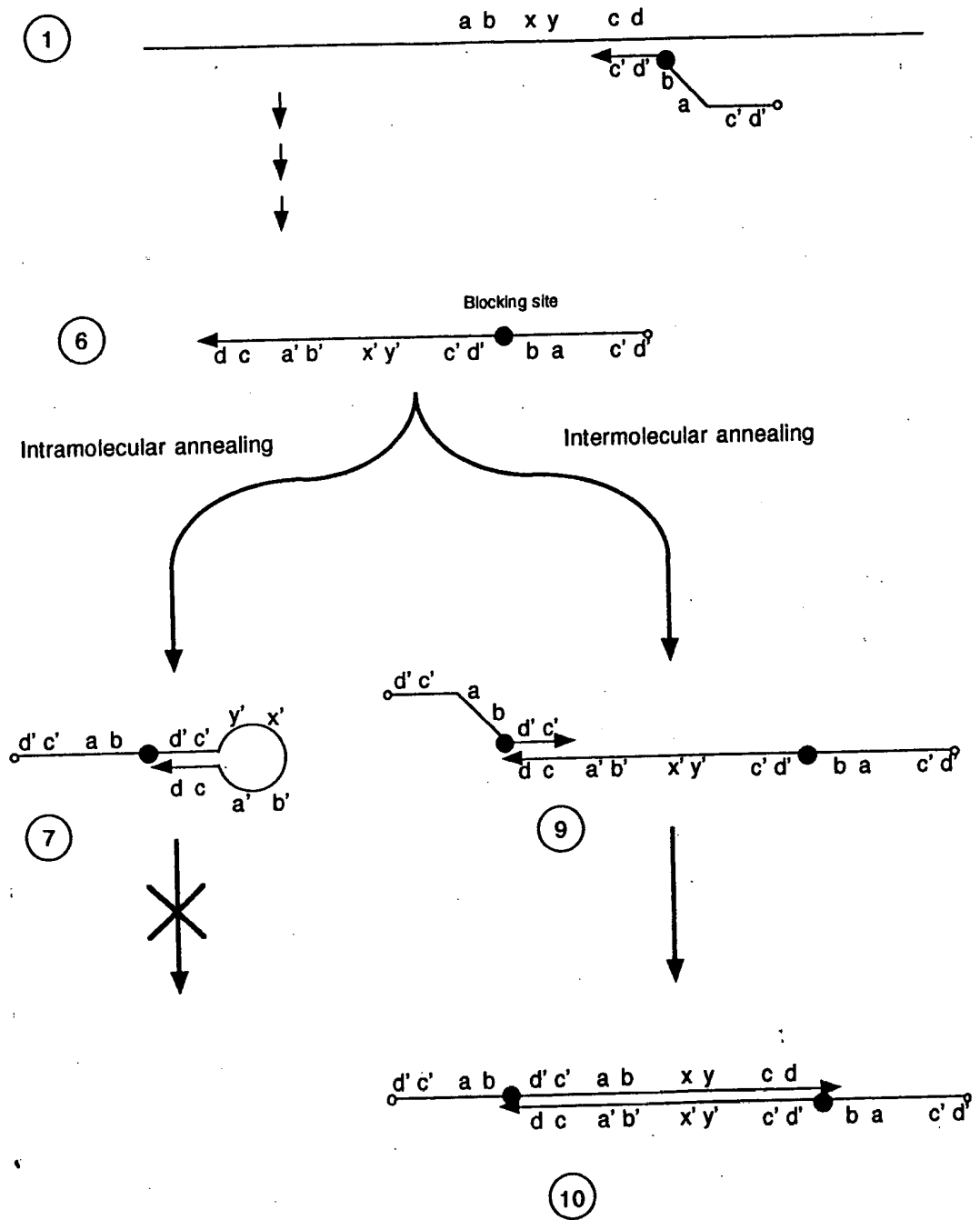


FIGURE 11

The diagram illustrates the formation of a DNA loop through intramolecular and intermolecular interactions. It is divided into two main sections: Intramolecular and Intermolecular.

Intramolecular:

- 1**: A linear DNA segment with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.
- 2**: The top strand folds back, bringing the A-T pair into proximity with the C-G pair. The top strand is labeled A, C', and 3'. The bottom strand is labeled A', B', and C'.
- 3**: The top strand folds further, bringing the A-T pair into proximity with the C-G pair. The top strand is labeled A, B, C, and 3'. The bottom strand is labeled A', B', and C'.

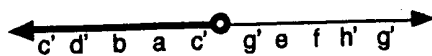
Intermolecular:

- 4a**: A circular DNA molecule with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.
- 4b**: Two linear DNA segments, each with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.
- 5a**: A circular DNA molecule with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.
- 5b**: Two linear DNA segments, each with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.

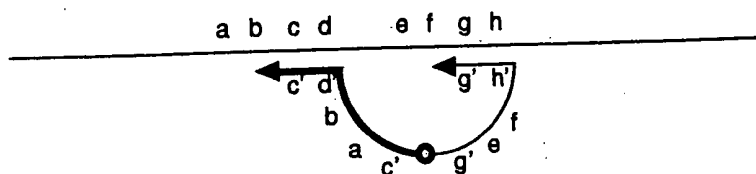
6: A linear DNA segment with a single A-T pair (A on the top strand, A' on the bottom strand) and a C-G pair (C' on the top strand, C on the bottom strand). The 3' ends are indicated.

FIGURE 12

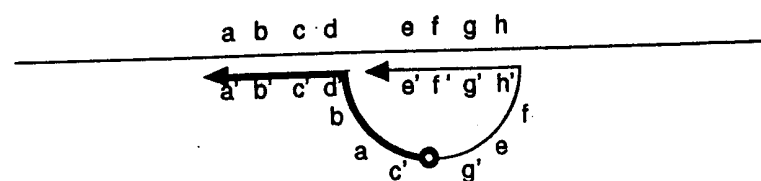
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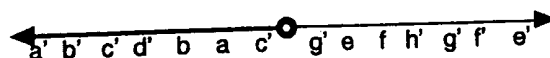
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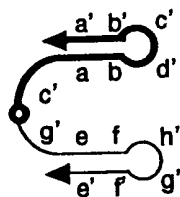
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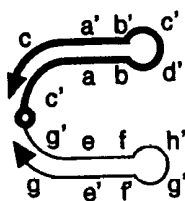
4



5



6



7

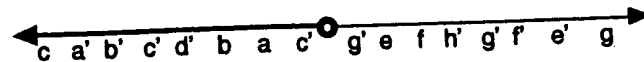
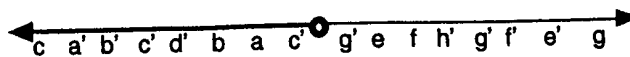


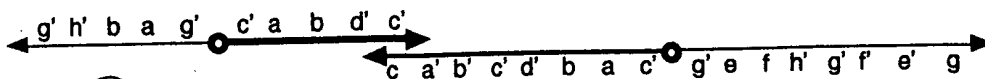
FIGURE 13

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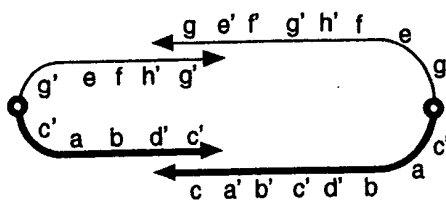
7



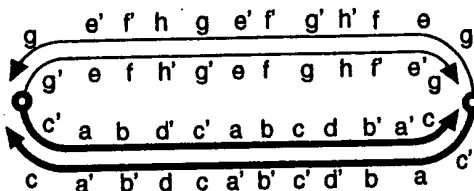
8



9



10



11

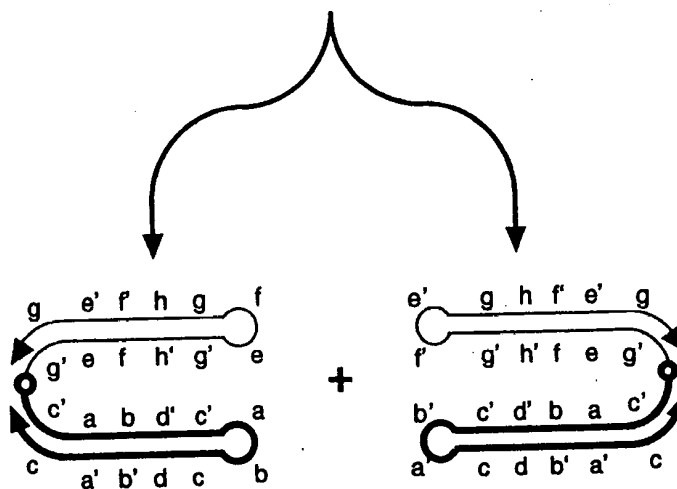
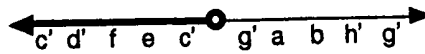
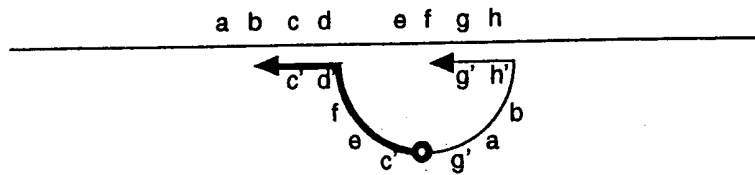


FIGURE 14

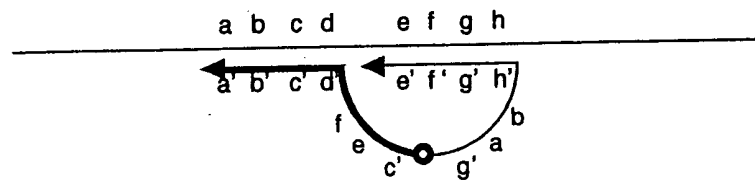
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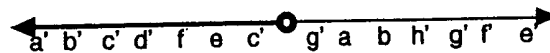
②



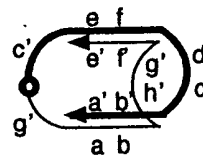
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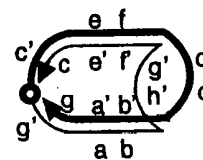
④



⑤



⑥



Form I

⑦

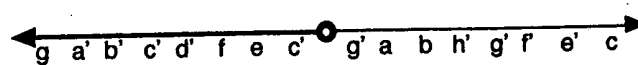


FIGURE 15

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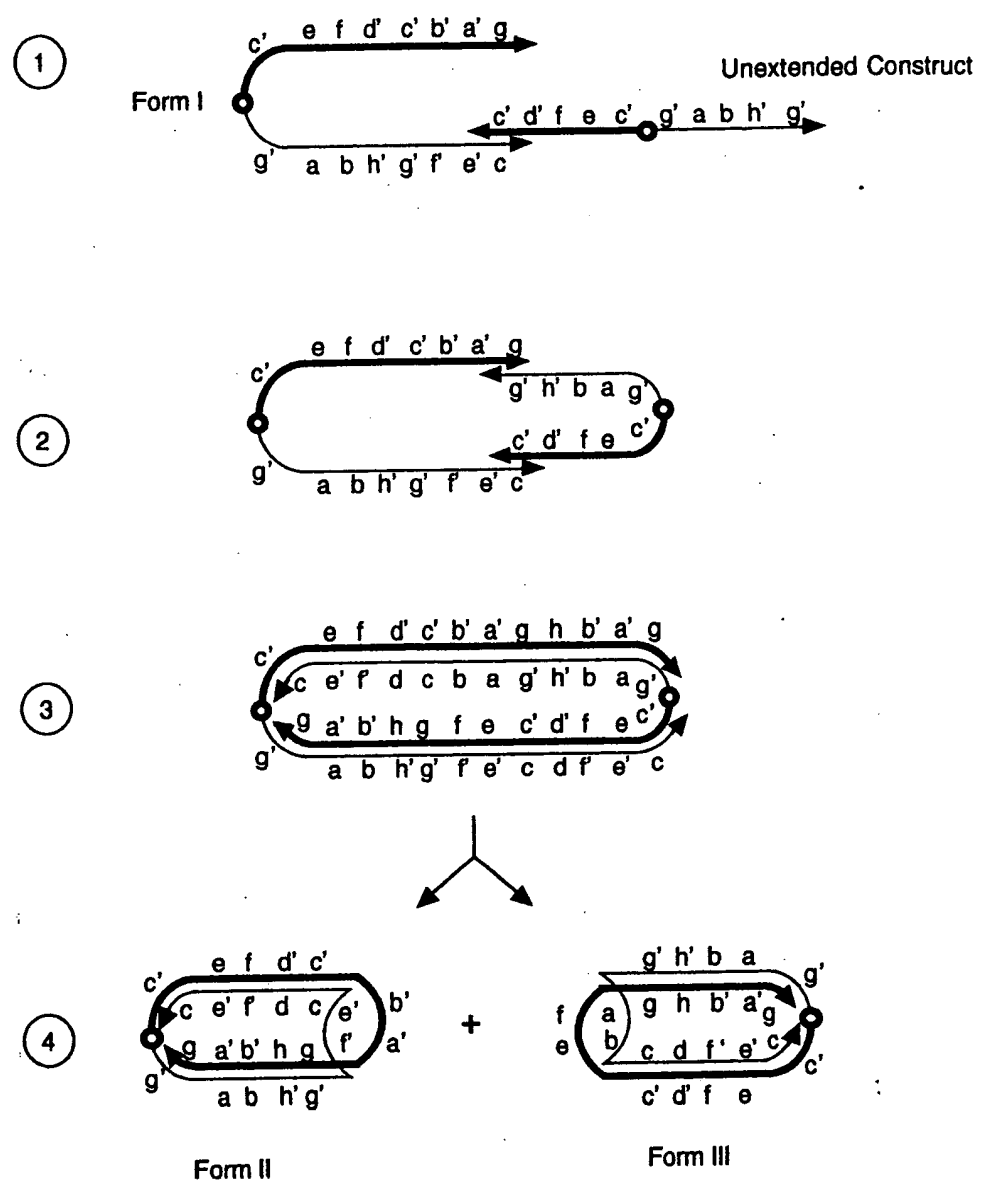
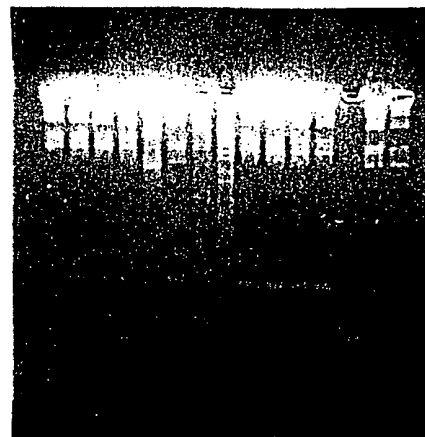
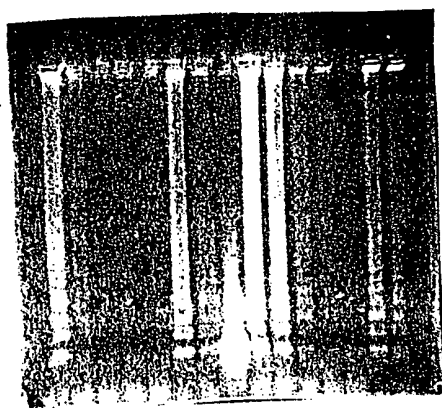


FIGURE 16

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A

B



30 Minutes Incubation

180 Minutes Incubation

- 1 53°C, 10⁻² dilution
- 2 53°C, 10⁻³ dilution
- 3 53°C, 10⁻⁴ dilution
- 4 53°C, 10⁻⁵ dilution
- 5 53°C, No Target
- 6 53°C, 10⁻² dilution, FC/LRC
- 7 53°C, 10⁻² dilution, LFC/RC
- 8 Msp I Marker
- 9 63°C, 10⁻² dilution
- 10 63°C, 10⁻³ dilution
- 11 63°C, 10⁻⁴ dilution
- 12 63°C, 10⁻⁵ dilution
- 13 63°C, No Target
- 14 63°C, 10⁻² dilution, FC/LRC
- 15 63°C, 10⁻² dilution, LFC/RC

FIGURE 17

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A) Gel assay

Top = Isothermal Amplification
Bottom = PCR Amplification

- 1 Msp I Marker
- 2 1×10^6 target
- 3 1×10^4 target
- 4 1×10^2 target
- 5 No target



B) Plate Assay

| 10^6 target | 10^4 target | 10^2 target | No target |
|---------------|---------------|---------------|-----------|
| 1.702 | 1.594 | 0.376 | 0.085 |

FIGURE 18

The image shows a document page, likely a ledger or table, with a high-contrast, black and white appearance. The page is heavily degraded with significant noise and artifacts. A vertical column of numbers (1, 2, 3, 4, 5, 6, 7, 8, 9, 10) is visible on the left side, followed by several columns of text and numbers. The right side of the page is mostly black with some faint, illegible markings.

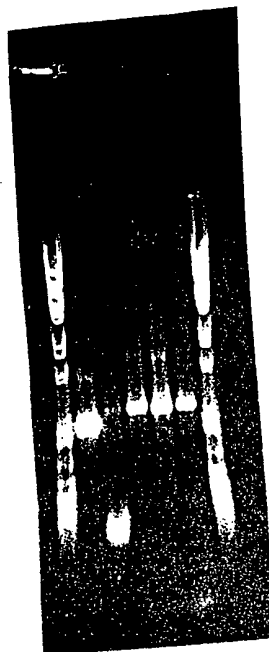
- FIGURE 19**

| Enzyme | Buffer | Temperature | Nucleotide | Relative Level of Synthesis |
|--------|-----------|-------------|-----------------------|--------------------------------|
| Klenow | NEB #2 | 37°C | Carboxy U Normal T | + ++ |
| Klenow | 2A | 37°C | Carboxy U Normal T | + + |
| Klenow | NEB #2 | 55°C | Carboxy U Normal T | + +++ |
| Taq | NEB #2 | 55°C | Carboxy U Normal T | ++ ++++ |
| Taq | 2M | 65°C | Carboxy U Normal T | ++ ++++ |
| Bst | ThermoPol | 65°C | Carboxy U Normal T | ++ ++++ |
| Taq | 2A | 65°C | Carboxy U Normal T | +/- +++ |

FIGURE 20

00420594.11299

00277 105000



1. Msp I/Bst E II marker
2. Normal T, 1 mM MgCl₂
3. Carboxy U, 2 mM MgCl₂
4. Carboxy U, 3 mM MgCl₂
5. Carboxy U, 4 mM MgCl₂
6. Carboxy U, 5 mM MgCl₂
7. Msp I/Bst E II marker

FIGURE 21

1. Msp I/Bst E II marker
2. Normal T, Taq
3. Carboxy U, Taq
4. Normal T, Tfl
5. Carboxy U, Tfl
6. Normal T, Tth
7. Carboxy U, Tth
8. Normal T, Amplitherm
9. Carboxy U, Amplitherm
10. Normal T, Replitherm
11. Carboxy U, Replitherm
12. Msp I/Bst E II marker

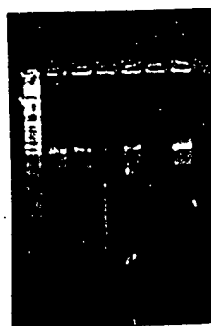
FIGURE 22

1. Taq, 2mM MgCl₂
2. Taq, 4mM MgCl₂
3. Taq, 6mM MgCl₂
4. Tfl, 2mM MgCl₂
5. Tfl, 4mM MgCl₂
6. Tfl, 6mM MgCl₂
7. Msp I marker
8. Tfl/Enh, 2mM MgCl₂
9. Tfl/Enh, 4mM MgCl₂
10. Tfl/Enh, 6mM MgCl₂

FIGURE 23

- FIGURE 24**

04130544 1390



1. Msp I marker
2. 0.3X enhancer
3. Control
4. deaza G
5. Gene 32
6. 10% DMSO
7. 3X polymerase

FIGURE 25

5'-TGC GCT GCT AAC AAA GCC CGA AAG GAA G-----GCT GAA AGG AAG AAC TAT ATG GCG TCA TAC GAT ATG AAC GTT-3'
 3'-ACG CCA CCA TTG TTT CCG GCT TTC CTT C-----CGA CTT TCC TCC TTG ATA TAC GCG AGT ATG CTA TAC TTG CAA-5'

TS-13

5'-AAT CTA GA GCT AAC AAA GCC CGA AAG GAA G-3'

TS-14

3'-CGA CTT TCC TCC TTG ATA TA GAC GTC TT-5'

TS-21

5'-TGC GCT GCT AAC AAA GCC CGA AAG GAA G-3'

TS-23

3'-CGA CTT TCC TCC TTG ATA TAC GCG AGT-5'

TS-22

5'-ACC CGC GCT GCT AAC AAA GCC CGA AAG GAA G-3'

TS-24

3'-G ATA TAC GCG AGT ATG CTA TAC TTG CAA-5'

FIGURE 26

00000000 441300

A high-contrast, black and white photograph of a dark, textured surface, possibly a book cover or endpaper. A vertical strip of lighter material, likely a hinge or binding edge, is visible on the right side. The image is grainy and has a high level of contrast, with the dark areas appearing almost black and the lighter areas appearing white. The texture of the surface is visible, showing small pits and irregularities. The overall composition is simple, focusing on the texture and the vertical line of the binding.

1. Msp I marker
2. TS13 + TS14
3. TS13 + TS23
4. TS13 + TS24
5. TS21 + TS14
6. TS21 + TS23
7. TS21 + TS24
8. TS22 + TS14
9. TS22 + TS23
10. TS22 + TS24
11. Msp I marker
12. TS13 + TS14 (different lot of C-U)
13. TS13 + TS14 (allylamine dUTP)
14. TS13 + TS14 (normal dTTP)

FIGURE 27

- FIGURE 28**

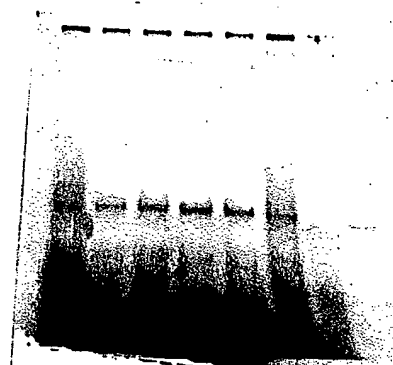
FIGURE 28

- | | |
|---|------------------------------|
| 1 | 1 x TAPS, pH 9.2 |
| 2 | 2 x TAPS, pH 9.2 |
| 3 | 3 x TAPS, pH 9.2 |
| 4 | 3 x TAPS, pH 9.7 |
| 5 | 3 x TAPS, pH 9.2 |
| 6 | 3 x TAPS, pH 8.6 |
| 7 | No enzyme control |
| 8 | Fluorescein 12-ddUTP control |

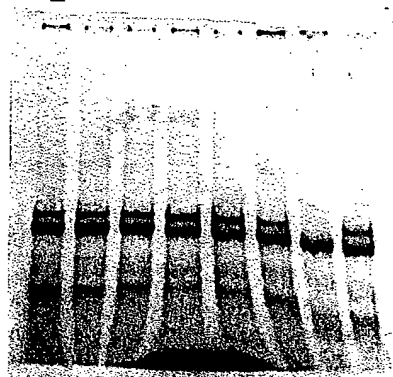
FIGURE 29

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Fluorescent detection



Ethidium Bromide fluorescence



- 1 1 x TAPS, pH 9.2
- 2 2 x TAPS, pH 9.2
- 3 3 x TAPS, pH 9.2
- 4 3 x TAPS, pH 9.7
- 5 3 x TAPS, pH 9.2
- 6 3 x TAPS, pH 8.6
- 7 No enzyme control
- 8 Fluorescein 12-ddUTP control

FIGURE 30